

Work Order ID 59387

Page 1

Thursday, June 03, 2010 11:22:31 AM

Item ID: D315-668-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 6/3/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/14/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: *14*Date: *10-6-03*

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2904

Rev B

0.00

100



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy bluefile & type labels per PPPD315-668-011

CHG 001

*8.10.07.30**for BG 10/07/28***B59387**

W/O: _____		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries -

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Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

LANDING GEAR RESOURCE 1

1-Cut D2904b to length as per dwg D2904

2-Drill aft and fwd cap holes as per dwg D2904 using DT8025 jig
(DO NOT OPEN TO FINISH SIZE)3-Drill saddle holes (6 Deg) as per Dwg D2904 using DT8938A jig
(ENSURE THAT LOCATOR RING IS SET FOR LH TUBE)4-Drill GHW holes (3 Deg) as per Dwg D2904 using DT8938B jig
(ENSURE THAT LOCATOR RING IS SET FOR LH TUBE)5-Insert and cleco doublers and DT8938d in position. Transfer all 256 holes thru
tube and doublers.

6-Remove doublers and identify batch# and orientation

7-C/sink Rivet holes 256 places as per Dwg D2904 and deburr

8-Locate from saddle holes, drill wearplate holes using DT8994. Jig must be 1.7"
from aft end of tube (REF)9-Remove fwd and aft indexing ridges as per dwg D2904. Open fwd and aft cap
holes to finish size, scribe batch# at aft end of tube.

10-Remove marks left from drill jig and deburr

10-6-7

10-6-8

10-7-12

10/6/10

10-7-12

(Pro)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D315-66B-011 PAR #: _____ Fault Category: Skid tubes NCR: Yes No DQA: _____ Date: 10-06-08
 Resolution: rework Disposition: rework QA: N/C Closed: 9/8 Date: 10/08/03

NCR: <u>59387</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10-06-08</u>	<u>110.5</u>	<u>Qty 3 doubler was not reco'd into position correctly. was on a slight angle. Doubler is hard to see deep inside the tube. rec: process</u>	<u>[Signature]</u>	<u>Scrap the doubler & replace. Start Presl. B 36929 D 2912 (x1)</u>	<u>[Signature]</u> <u>10-6-8</u>	<u>8</u> <u>16/07/12</u>	<u>[Signature]</u>	<u>[Signature]</u> <u>10-06-08</u>

NOTE: Date & initial all entries

Work Order ID 59387

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Thursday, June 03, 2010 11:22:31 AM

Item ID: D315-668-011

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Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 6/3/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/14/2010 Req'd Qty: 1.00



Customer:

Reference:

Run

Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(70)			
130 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
140 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							

S 10/07/12

10-7-12

1 in 10/17/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Item Name: Skidtube LH

Start Date: 6/3/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 6/14/2010 Req'd Qty: 1.00

Customer:


Reference:

Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		0.00							
	Skidtubes								
Skidtubes	Memo	0.00							
	LANDING GEAR RESOURCE 1								
	1-Remove alodine around X-Bolt holes on doublers								
	2-Rivet doublers as per Dwg D2904.(DO NOT INSTALL RIVETS AROUND X-BOLT HOLES AT THIS TIME)								
	3-Open X-Bolt spacer holes to finish size as per dwg D2904.(DO NOT USE CUTTING FLUID)								
	4-C'sink and deburr X-Bolt spacer holes, prepare for Welding.								
	5-Blow all chips from inside tube								
	6-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting								
	Pick:								
	Qty <input type="checkbox"/> Part Number <input type="checkbox"/> Description <input type="checkbox"/> Batch								
	A/R <input type="checkbox"/> <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> 7/13/19 <input type="checkbox"/> <input type="checkbox"/>								
	Sikaflex expire date: 10/11/30								
	Start Time: 10:30								
	Fin Time:								
	Date: 10/7/13								
	Date:								

M 10/7/13

PTC

PTO

M 10/7/13

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Dart Aerospace Ltd

W/O: 59387		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10.06.09	110	USE CR3212-403 RIVETS B/N M114450 (x172) INSTEAD OF MS20601AD463 M114889 (x88) FSHERR = 240 ^{1/2} FOR MS20601 FSHERR = 66 ^{1/2} FOR CR3212	M BE	10/11/13 10/07/20		10.06.09 09/04/20	10/07/20

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10/06/09	110							

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Item Name: Skidtube LH

Start Date: 6/3/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/14/2010 Req'd Qty: 1.00



Customer:

Reference:

Run

Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Skidtubes	0.00							
	Skidtubes								
Skidtubes	Memo	0.00							
	LANDING GEAR RESOURCE 1								
	1-Weld crossbolt spacers D2909as per Dwg. D2904and QSI 004. For D2579 spacers, weld one side, pass Y" drill, weld other side, pass Y" drill A/R□□□ Aluminum Rod <i>mla2507</i>								<i>BE 10/07/14</i>
	2-Grind welds as per Dwg D2909								<i>BE 10/07/20</i>
	3-Install remaining rivets around X-Bolt spacer , use rivet shaver as necessary								
	4-Deburr,inspect tube for any visible scratches								
170	QC5- Inspect part completeness to step on W/O	0.00							
	QC								<i>811</i>
Quality Control	Memo	0.00							

810/07/20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Item Name: Skidtube LH

Start Date: 6/3/2010 **Start Qty:** 1.00

Required Date: 6/14/2010 **Req'd Qty:** 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Setup

Start

Stop

Run

Start

Stop

**Insp.
Stamp**

180

QC10- Inspect visual per QSI004- ground welds

0.00

8/10/07/00

0.00

QC

Memo

Quality Control

190

Pressure Wash per QSI005 4.3

0.00

HandFinish

Memo

0.00

Hand Finishing

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Powdercoat

Memo

0.00

Powder Coating

POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1:85
E: 320
2105

① BK 107-22

162 10720

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Start Date: 6/3/2010 Start Qty: 1.00

Required Date: 6/14/2010 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Setup

Start

Stop

Run

Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

210

QC3- Inspect Part Finish

0.00

=> 9/10/07/27

1

0

QC

Memo

0.00

Quality Control

220

HandFinishing

0.00

=> 9/10/07/27

1

9

HandFinish

Memo

0.00

Hand Finishing

HAND FINISHING RESOURCE #1

1-Install inserts & wearplates as per Dwg. D2904. Use a drop of Sikaflex on insert holes before installing wearplates

A/R ☐ ☐ ☐ Sikaflex-291 ☐ 11/15/04
Sikaflex expire date: 11/05

3-Inspect for foreign object per QSI 024

4-Install 2646 Aft & fwd Caps as per Dwg D2904 and seal with Sikaflex. Clean excess adhesive

A/R ☐ ☐ ☐ Sikaflex-291 ☐ 11/15/04
Sikaflex expire date: 11/05

5-Wing Walk as per Dwg D2904 and QSI 005
4.4

Batch: 11/15/028

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Run Start

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(X)			
240 Packaging Packaging	Identify as per dwg & Stock Location Memo	0.00 0.00							
250 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

10/12/30
10/08/03
MF 10-8-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 59387

Parent Item: D315-668-011

Parent Item Name: Skidtube LH

Comments: IPP Rev:A New Issue 07-04-12 JLM
IPP Rev:B remove seq. 19 (handfinish wing walk) 08-04-30 DD verified
by:EC

Start Date: 6/3/2010

Required Date: 6/14/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
D2904B		Manufactured	No			110	Each	9.0000	1	1			



Skidtube, 315

Location

Loc Qty

Loc Code

LG

9

31826

1

36926

1

57330

7

110

Each

26.0000

Handwritten: 10-6-7

D2910

Manufactured

No



Doubler

Location

Loc Qty

Loc Code

ST030

26

36927

26

110

Each

35.0000

Handwritten: 11/2/6/7

D2911

Manufactured

No



Doubler

Location

Loc Qty

Loc Code

ST030

35

36928

35

110

Each

1,501.000

Handwritten: 11/2/6/7

MS27039-1-08

Purchased

No



Screw

Location

Loc Qty

Loc Code

ST291

1501

110552

44

10835

1257

114718

200

Handwritten: 854 10/07/22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1




Start Date: 6/3/2010

Required Date: 6/14/2010

Comments: IPP Rev:A New Issue 07-04-12 JLM
IPP Rev:B remove seq. 19 (handfinish wing walk) 08-04-30 DD verified
by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
D2912		Manufactured	No			150	Each	22.0000	2	2			
													
Doubler													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST030			22						
				36929			22						
MS20601-AD4W3		Purchased	No			150	Each	4,028.000	256	256			
													
Rivet													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				ST321			4000						
				114538			4000						
				ST322			28						
				113899			28						
D2905		Manufactured	No			160	Each	2.0000	1	1			
													
Web, 315 Skidtube													
				<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>				
				LG			2						
				57333			2						

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W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

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Work Order ID: 59387

Parent Item: D315-668-011

Parent Item Name: Skidtube LH

Comments: IPP Rev:A New Issue 07-04-12 JLM
IPP Rev:B remove seq. 19 (handfinish wing walk) 08-04-30 DD verified by:EC

Start Date: 6/3/2010

Required Date: 6/14/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
ALS4-1032-130		Purchased	No			220	Each	5,999.000	50	50			
Insert													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				PKG11		5000							
				114723		5000			x50 10/07/27				
				ST282		390							
				110511		38							
				114407		352							
				ST381		609							
				114654		609							
AN960JD10L	NAS1149D0332J	Purchased	No			220	Each	3,878.000	54	54			
Washer													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST348		3878							
				110985		3878			x54 10/07/27				
D2646		Manufactured	No			220	Each	109.0000	2	2			
Aft Cap													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FP-4		99							
				57332		99			x2 10/07/27				
				FP6		10							
				52663		10							

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W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
D2648-3		Manufactured	No			220	Each	13.0000	5	5			
													
Wearpad													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
					FG		12						
					45316		12						
					FP17		1						
					(52516)		1						
D2656-13		Manufactured	No			220	Each	24.0000	1	1			
													
Wearplate													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
					FP020		12						
					57354		12						
					FP20		12						
					(55454)		12						
D2656-33		Manufactured	No			220	Each	19.0000	1	1			
													
Wearplate													
<div> <div>Location</div> <div>Loc Qty</div> <div>Loc Code</div> </div>													
					MEZZ		19						
					(43806)		6						
					46167		13						

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W/O:		WORK ORDER CHANGES					
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Picklist Print

Page 5

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Start Date: 6/3/2010

Required Date: 6/14/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Qty per Kit	Total	Qty	Date	Status
D2907		Manufactured	No			220	Each	29.0000	1	1			
<div>Wearshoe</div> <div> <div>Location</div> <div>FP</div> <div>14654</div> <div>Loc Qty</div> <div>29</div> <div>29</div> <div>Loc Code</div> </div>													
D2909		Manufactured	No			220	Each	30.0000	11	11			
<div>Spacer, Lama</div> <div> <div>Location</div> <div>LG</div> <div>14091</div> <div>Loc Qty</div> <div>30</div> <div>30</div> <div>Loc Code</div> </div>													
<div> <div>B 59594</div> <div> <div>3</div> <div>BE 10/07/14</div> </div> </div>													

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Page 5

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DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D2904	Rev. B SHEET 1 OF 3
DATE 00.06.21		TITLE SA 315B SKIDTUBE ASSEMBLY	
A	99.09.09	NEW ISSUE	
B	00.06.21	CHANGED ANGLES FOR HOLES	

PARTS LIST:

Qty -041	Qty -042	Part Number	Description
X		D2904-041	LH SKIDTUBE ASSEMBLY
	X	D2904-042	RH SKIDTUBE ASSEMBLY
2	2	D2646	CAP
4	4	D2648-3	WEARPAD
1	1	D2648-5	WEARPAD
1	1	D2656-13	WEARSHOE
1	1	D2656-33	WEARSHOE
1		D2904-1	SKIDTUBE
	1	D2904-2	SKIDTUBE
1	1	D2905	WEB
1	1	D2907	WEARSHOE
11	11	D2909	CROSS BOLT SPACER
2	2	D2910	SKIDTUBE DOUBLER
2	2	D2911	SKIDTUBE DOUBLER
2	2	D2912	SKIDTUBE DOUBLER
50	50	ALS7-1032-130 or AKS4-1032-130 or ALS4-1032-130 or ALS7-1032-130	INSERT
54	54	AN960JD10L	WASHER
256	256	MS20601AD4W3	RIVET
54	54	MS27039-1-08	SCREW

SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 59287

Bf 10-6-03

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00.07.01

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DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2904	Rev. B SHEET 2 OF 3
DATE 00.06.21		TITLE SA 315B SKIDTUBE ASSEMBLY	SCALE 1:20

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. MAKE D2904-1 AND D2904-2 FROM D2914 EXTRUSION (INITIAL LENGTH = 142.0).
3. DAMAGE TOLERANCE ON BENDING:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
4. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTION C-C.
5. DRILL #30 HOLES ($\varnothing 0.128$ REF) TO LINE UP WITH $\varnothing 0.128$ HOLES IN D2910/D2911/D2912 DOUBLERS. C'SINK $\varnothing 0.239 \times 100^\circ$.
6. BOND D2905 WEB INTO D2904-1 (OR D2904-2) OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
7. WELDING TO BE DONE PER DART QSI 004.
8. AFTER DRILLING, BENDING, AND INSTALLING WEB & DOUBLERS, PERFORM THE FOLLOWING FOR $\varnothing 0.500$ HOLES ONLY:
 - CHAMFER HOLE $0.050 \times 45^\circ$
 - INSERT D2909 SPACER (11 PLACES)
 - WELD INTO PLACE
 - GRIND FLUSH
 - DRILL OUT SPACER TO $\varnothing 0.406$
9. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
 - MINIMUM YIELD TENSILE STRENGTH = 35 ksi
 - MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
10. FINISH:
 - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2905 WEB AND D2910/D2911/D2912 DOUBLERS.
 - POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
 - BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
11. DRILL $\varnothing 0.297$ FOR ALS7-1032-130 INSERT USING DT8395 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH.

6885 9m

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00.09.01 *[Signature]*

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DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

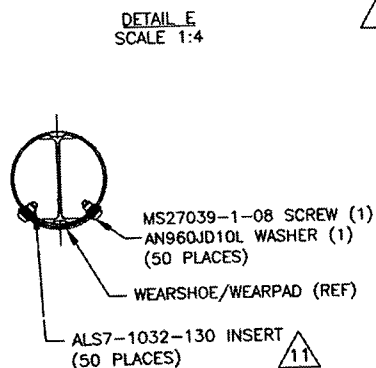
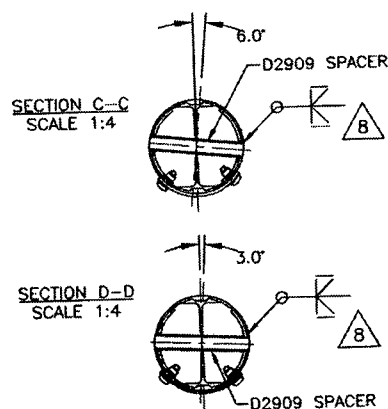
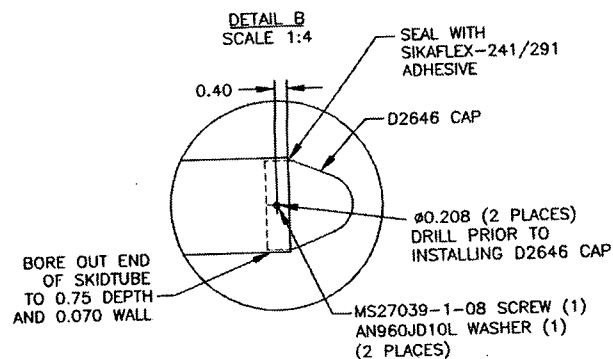
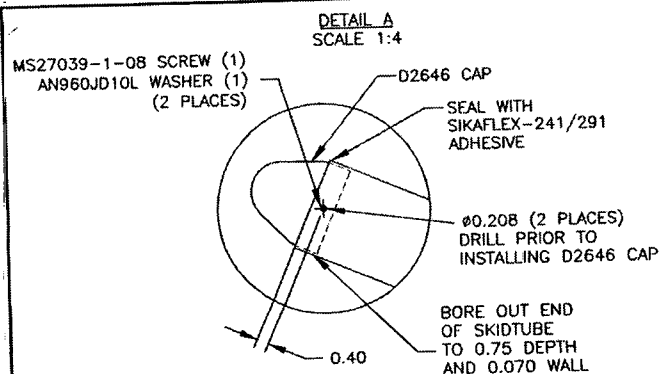
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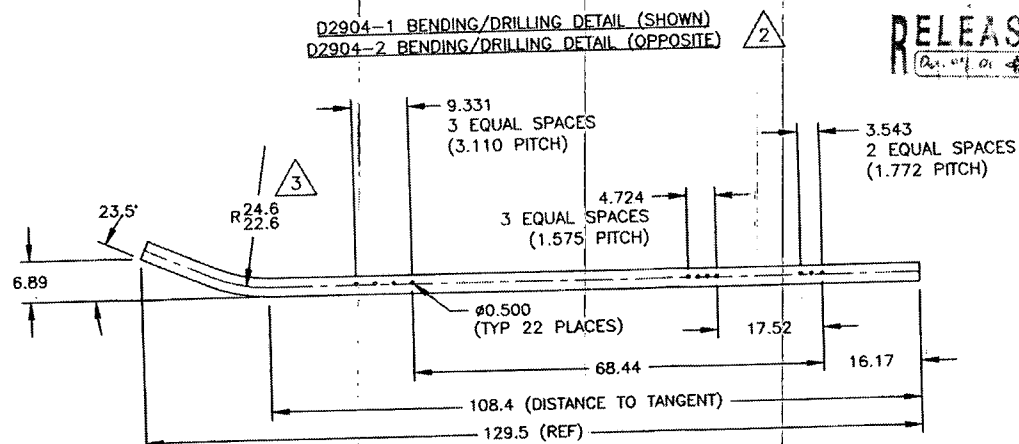
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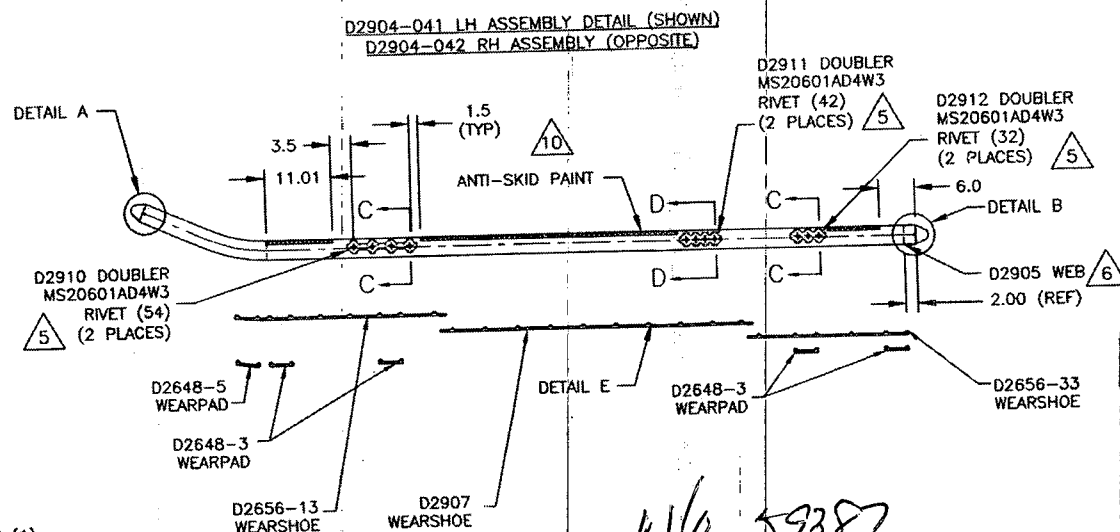
RELEASED



D2904-1 BENDING/DRILLING DETAIL (SHOWN)
D2904-2 BENDING/DRILLING DETAIL (OPPOSITE)



D2904-041 LH ASSEMBLY DETAIL (SHOWN)
D2904-042 RH ASSEMBLY (OPPOSITE)



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		DATE	00.06.21	TITLE		SA 315B SKIDTUBE ASSEMBLY	SCALE 1:20

W/0 59387

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NO. 231

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 573260
Part number: D315 668 012
Description: Lama tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminium
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Pat. Dent. Date of Test Coupon 10.05.18

Welder Barclay Elliott Date of Test Coupon 10.05.18

The above named individual is qualified in accordance with AWS D17.1.2001 to weld